performed to determine if gender was an independent predictor of guideline door-to-balloon time of <90 min.
Results: Amongst 2032 pts with confirmed STEMI referred between May 2005 and July 2010, 574 (28%) were women and 1458 (72%) were men. Women differed from men in the following baseline characteristics: age, 68±14 vs. 60±12, p<0.0001, hypertension, 58% vs. 45%, p<0.0001, smoking, 34% vs. 44%, p<0.0001, prior bypass surgery, 2% vs. 4%, p=0.01, prior stroke, 9% vs. 6%, p=0.01, systolic blood pressure, 132±30 vs 136±29, p=0.001, BMI, 27±6 vs. 28±5, p=0.02, creatinine clearance, 65±28 vs. 76±29, p<0.0001, and Killip class 1 82% vs. 87%, p=0.008. Women were more likely to call for an ambulance, 71% vs. 62%, p=0.0001. PCI was performed in 92% of women and 94% of men, p=0.17. Women were less likely to be treated with stents, 88% vs. 92%, p=0.007. The median door-to-balloon time in women was 105 min (IQR=79-137) vs. 99 min (IQR= 72-132) for men, p=0.005. The 30 day mortality was 7.5% in women vs. 4.8% in men, p=0.02. The results of the multivariable analysis to determine predictors of door-to-balloon time <90 min are shown in the table.

Variable	Odds Ratio	LCL	UCL	p-value
Ambulance	6.16	4.76	7.96	<0.0001
Female Gender	0.67	0.49	0.93	0.016
Diabetes Mellitus	0.56	0.41	0.76	<0.0001
Killip Class	0.62	0.51	0.75	<0.0001
Systolic Blood Pressure	0.99	0.99	1.00	<0.0001

Conclusion: In spite of standardized protocols implemented in a STEMI system, women continue to have longer door-to-balloon times. Additional research is needed to reduce delays to reperfusion in women.

Heart Disease in Diabetics

(Abstract nos 426 - 436)

TCT-426

Diabetes Mellitus Requiring Insulin and High Residual Platelet Reactivity After Clopidogrel Loading Dose are Predictors of Long-term Clinical Outcome in Patients with Acute Coronary Syndrome: the RECLOSE2-ACS Diabetes Mellitus Substudy

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Background: The Responsiveness to CLOpidogrel and Stent-related Events in patients with ACS(RECLOSE2-ACS) receiving PCI and for whom platelet reactivity after clopidogrel loading was prospectively assessed. To test if high residual platelet reactivity (HRPR) would be a prognostic marker of risk of thrombotic events and to assess the relationship of diabetes mellitus (DM) with HRPR on clinical outcome.
Methods: Consecutive ACS patients undergoing PCI and platelet reactivity after 600 mg clopidogrel loading dose. Patients with HRPR (ADP 10 µmol ≥ 70%) received an increased chronic dose of clopidogrel. DM was investigated according to insulin use. The interaction between DM and HRPR on outcome was assessed by Cox analysis. Primary end point: composite of cardiac death, MI, urgent PCI, and stroke at 2y FU. ClinicalTrial.gov: NCT01231035.
Results: A total of 1789 patients were enrolled: 20% had DM: 11% were non-insulin dependent (NIDD), 9% were insulin dependent (IDD) and 80% were non diabetic (ND). HRPR incresead according to diabetic status: ND 12%, NIDD 18% and IDD 22% (p=.001). Most patients with HRPR remained with an ADP ≥ 70% after treatment adjustment: ND 36%, NIDD 41% and IDD 43%. In patients with DM and HRPR, there were no differences in the primary end point rate (15% vs 19%) after treatment adjustment between patients with an ADP < 70% and with ADP ≥ 70%. HRPR and IDD resulted independent predictors of the primary end point (HR 1.5 ; p=.032 and HR 1.4; p=.029 respectively) and cardiac mortality (HR 1.7; p=.013 and HR 1.8; p=.016). No interaction of HRPR with DM on outcome was found.
Conclusion: HRPR is two-fold higher in IDD as compared to ND. HRPR and IDD are predictors of long-term clinical outcome in ACS patients receiving PCI. In DM patients, treatment adjustment with first generation of thienopiridine, has not impact on outcome. It is unknown if new antithrombotic agents (as prasugrel or ticagrelor) will provide an improvement on clinical outcome.

TCT-427

Clopidogrel Hyporesponsiveness, Interacting with Diabetes Mellitus, Predicts 2-Year Cardiovascular Outcome Among Taiwanese Population Underging Percutaneous Coronary Intervention

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Background: Platelet reactivity after clopidogrel therapy varies among individuals. This study was aimed to evaluate clinical impacts of clopidogrel response variability and the covariant factors in Asian populations undergoing elective percutaneous coronary intervention (PCI).
Methods: Patients receiving clopidogrel after elective PCI were prospectively followed up. Platelet reactivity after clopidogrel therapy was measured with the VerifyNow P2Y12 assay. The primary endpoints were stent thrombosis and the composite of cardiac death and non-fatal myocardial infarction (MI) at 2 year.
Results: Among 160 patients (average year of age 62.1±12.9 with 83.5% male in gender), the average of P2Y12 reaction unit (PRU) was 239.0±85.8 and the average of inhibition was 0.29±0.22%. Distribution of P2Y12 reaction units (PRU) in this study cohort was higher than Caucasian reports. Hyporesponders were defined as those with PRU >275, which was derived from an ROC curve analysis. The background characteristics were similar in both groups except for diabetes mellitus (DM) (higher PRU vs. low PRU: 57% vs. 35%; p<0.05). The average PRU of patients with DM was significantly higher than those without DM (273.7±70.7 vs. 213.2±87.8; p=0.005). Patients with high PRU levels also had significantly higher rates of both the composite events (2.4% vs. 0.8%, p=0.04), and stent thrombosis rate (1.8% vs. 0.2%; p=0.03) compared to normal responders. Multivariable-adjusted analysis showed that PRU >275 remains an independent predictor of the clinical composite endpoints.
Conclusion: Clopidogrel hypo-responsiveness was significantly associated with cardiovascular outcome in patients undergoing elective PCI at 2 year. DM contributes greatly to Asian populations' platelet reactivity. We should consider ethnic differences when choosing the cutoff value of PRU.

TCT-428

Effects of Low Dose Pioglitazone on Restenosis and Atheroma Plaques in Patients with Diabetes Mellitus Undergoing Percutaneous Coronary Intervention

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Background: The insulin-sensitizing agents (rosiglitazone, pioglitazone) reduced neointimal proliferation in patients with diabetes mellitus (DM) who underwent percutaneous coronary intervention (PCI) with bare metal stents via the PPAR-r receptor. We evaluated the clinical outcomes, angiographic results and intravascular ultrasound (IVUS) results of patients taking pioglitazone after PCI.
Methods: This study was a single center, prospective randomized study. The study population currently included 121 diabetic patients with coronary artery disease, assigned to 51 patients taking 15mg of low dose pioglitazone daily in addition to their diabetic medications and 70 patients without pioglitazone. We have analyzed the clinical outcomes, angiographic results, IVUS results and the effects on the lipid profile after 12 months of treatment.
Results: Ninety-seven patients completed follow-up angiography. Among them, follow-up IVUS was done in fifteen patients. There were no significant differences between the pioglitazone group and the control group of the baseline clinical demographics and angiographic findings. The average lesion length and reference diameter (RD) were 27.2±10.8 mm vs. 27.9±13.2 mm and 2.61±0.46 mm vs. 2.67±0.43 mm in the pioglitazone group and the control group, respectively. After 12 months of medication, total triglyceride and LDL levels were decreased in the pioglitazone group compared to control group statistically insignificant. There was no difference of major cardiac adverse events (MACE), TLR, TVR and The rate of in-stent restenosis(ISR) between two groups. There were statistically no difference of neointimal volume, percent neotintmal volume, percent atheroma volume and normalized total atheroma volume between two groups on IVUS study.
Conclusion: The results of this study showed that low dose pioglitazone, in diabetic patients who underwent PCI, was not associated with reduced MACE, TLR, non-TVR and restenosis. And, low dose pioglitazone didn't affect atheroma plaques and neointimal proliferation in the stents by IVUS.

TCT-429

Clinical and Angiographic Results Of the Titanium vs Everolimus Stent In Diabetic Patients Randomized Trial (TITANIC-XV)

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Background: In a roughly 25% of patients (p) Drug Eluting Stents (DES) are not recommended due to specific clinical reasons that make prolonged use of clopidogrel not appropriated. A remarkable percentage of these p have diabetes mellitus (DM), a well known risk factor for stent restenosis. Our aim was to evaluate, in a prospective randomized trial, whether in DM-p the titanium stent (T), a bioactive bare metal stent

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